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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,083	09/19/2003	Boris Prokopenko	252209-2100	8438

24504 7590 08/17/2007  
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ATLANTA, GA 30339-5948

EXAMINER
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GEIB, BENJAMIN P

ART UNIT	PAPER NUMBER
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2181

MAIL DATE	DELIVERY MODE
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08/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Notice of Allowability**

Application No.

10/666,083

Applicant(s)

PROKOPENKO ET AL.

Examiner

Benjamin P. Geib

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment received 07/09/2007.
2. ☒ The allowed claim(s) is/are 1-7, 9-11, 18-22 and 25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*aw kindred*  
**ALFORD KINDRED**  
**PRIMARY EXAMINER**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel McClure on 7/18/2007.

The application has been amended as follows:

In claim 18:

at line 18 of the claim, please DELETE the word "the" in the phrase "rotation of the vector components";

at line 24 of the claim, please INSERT the word "means" after the word "controller".

### **REASONS FOR ALLOWANCE**

2. In the non-final Office Action mailed 05/03/2007, the examiner indicated that claims 1-7, 9-11, 18-22, and 25 would be allowable if rewritten or amended to overcome the objections and rejections under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in the Office Action. The applicant, via amendment, has overcome these objections and rejections. Therefore, the examiner withdraws the objections and rejections and allows claims 1-7,

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9-11, 18-22, and 25. The previously indicted reasons for allowance are copied below for convenience.

3. The following is an examiner's statement of reasons for allowance:

The prior art of record including the disclosures of Bratt et al. (U.S. Patent No. 6,877,020), Jung et al. (U.S. Patent No. 6,804,771), Saulsbury et al. (U.S. Patent Application Publication No. 2002/0032710), and Hanounik et al. ("Linear-time Matrix Transpose Algorithms Using Vector Register File With Diagonal Registers") neither anticipates nor renders obvious the following limitations of claim 1 (in combination with all other features in the claim):

"wherein the controller is comprised of:

address lines configured to identify a proper component register of each respective register bank, wherein the address lines are provided by outputs of multiplexers configured to receive inputs from an up counter and a down counter located within the controller; and

control bits configured to control operation of the multiplexer stages within the input rotator and the output rotator, wherein the control bits are provided by outputs from the up counter."

Claims 2-7 and 9-11 depend from claim 1 and are considered allowable for at least the reasons noted above with respect to claim 1.

The prior art of record including the disclosures cited above neither anticipates nor renders obvious the following limitations of claim 18 (in combination with all other features in the claim):

“wherein the input rotation means and the output rotation means are communicably coupled to the controller means through control signals, wherein the control signals between the controller means and input rotation means are the same control signals as the control signals between the controller means and the output rotation means, and wherein the controller means is comprised of:

address lines configured to identify a proper component register of each respective register bank, wherein the address lines are provided by outputs of multiplexers configured to receive inputs from an up counter and a down counter located within the controller; and

control bits configured to control operation of the multiplexer stages within the input rotator and the output rotator, wherein the control bits are provided by outputs from the up counter.”.

Claims 19-22 and 25 depend from claim 18 and are considered allowable for at least the reasons noted above with respect to claim 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

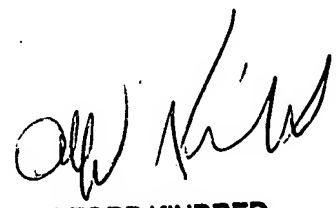
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin P. Geib whose telephone number is (571) 272-8628. The examiner can normally be reached on Mon-Fri 8:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571) 272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin P Geib  
Examiner  
Art Unit 2181



ALFORD KINDRED  
PRIMARY EXAMINER